

# SOME BIRD ASSOCIATIONS OF BENGAL

BY

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(With a sketch map)

I have tried in the following pages to set forth an accurate picture of the various major associations of birds as I found them during a period of nearly 17 months at Jessore, and 3 months at Dhubalia, both in Bengal. Both lie behind the Sundarbans, but Dhubalia, which is some six miles NNW of Krishnagar, lies some 60-70 miles WNW of Jessore and is relatively much drier with rather less luxuriant vegetation.

The Indian countryside, like any other, is made up of a mixture of an infinite number of different characters, and in a study of this kind it is possible to separate only the major types of habitat occurring in the survey area, disregarding the many minor variations which occur within each of the main types.

Thus, although the country, particularly round Jessore, is sprinkled liberally with small tanks, they do not usually appear to have a sufficiently marked avifauna of their own to warrant their separate consideration; if indeed they have one, it is usually submerged in that of the dominant type of land in which the tank is situated. Only where there were special circumstances did I feel that a tank could justifiably be dealt with as a separate type of habitat.

In most cases I have disregarded geographical sub-species, as it is usually almost impossible to differentiate between them in the field without reference to good museum specimens, and these were not available.

## JESSORE

*Period of Survey* : 14th April  
1943 to 9th Sept. 1944, with 3  
breaks of about a fortnight each  
and one of a month in Sept. 1943.

*Co-ordinates* : 23° 11' N. 89°  
10' E.

*Natural Vegetation Region* : Tropical Rain Forest.

*Altitude* : 20' A.M.S.L.

*Subsoil* : Alluvium with a few  
pockets of brick earth.

*Habitat Types* :

## DHUBALIA

11th Sept. to 11th Dec. 1944  
with one break from 10th to 31st  
Oct.

23° 30' N. 88° 28' E.

### I. CIVILISATION GROUP:

(1) Country Town.

(1) —

### II. CULTIVATION GROUP:

(2) Mixed cultivation.

(2) Mixed cultivation.

(3) Paddyfields.

(3) Paddyfields.

## III. JUNGLE GROUP:

- |                                                      |                   |
|------------------------------------------------------|-------------------|
| (4) Mixed jungle.                                    | (4) Mixed jungle. |
| (5) Scattered roadside trees<br>(dominantly peepal). | (5) —             |
| (6) —                                                | (6) Mango grove.  |
| (7) Small groves of palms.                           | (7) —             |

## IV. WASTE LAND GROUP:

- |                                                      |                                                      |
|------------------------------------------------------|------------------------------------------------------|
| (8) Waste land under grass<br>(including aerodrome). | (8) Waste land under grass<br>(including aerodrome). |
| (9) —                                                | (9) Semi-marsh land.                                 |
| (10) Marsh.                                          | (10) —                                               |

## V. INLAND WATER GROUP:

- |                        |                   |
|------------------------|-------------------|
| (11) Small river.      | (11) Small river. |
| (12) Jheels and tanks. | (12) Jheels.      |

## DESCRIPTION OF HABITAT TYPES:

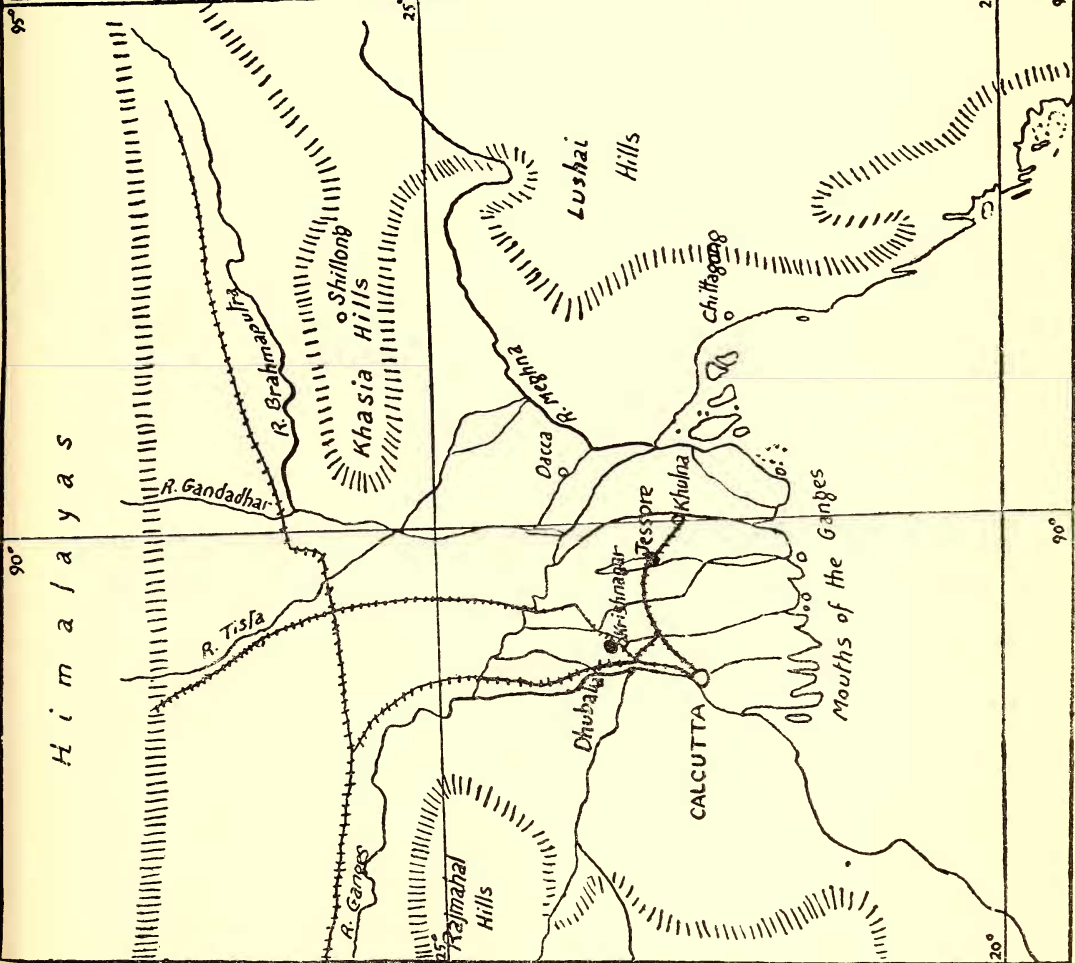
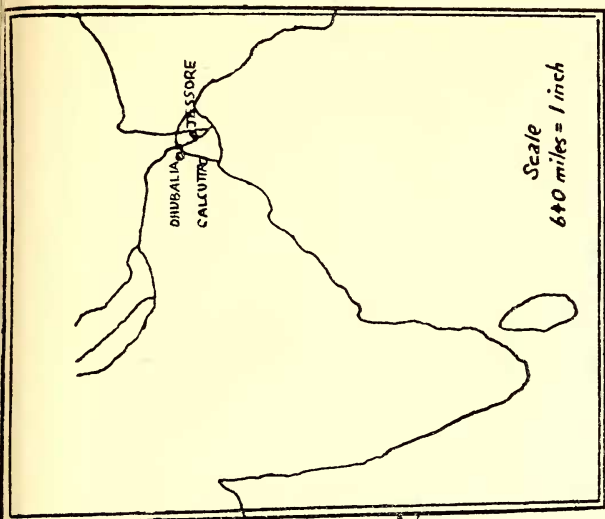
## I. CIVILISATION GROUP

## JESSORE

(1) *Country Town*: Jessore is a typical small Indian provincial town, spreading out more and more thinly the further it extends from the congested core of the Bazar. Outside the Bazar area the roads are fairly open and lined with large mature trees (many banyans). Buildings are widely spaced and the rest of the ground is occupied by compounds, tanks (see Introduction) and open patches of more or less waste land. The whole area is very well wooded, with large mature trees, predominantly banyan, tamarind, a species of cedar or deodar(?), and various palms (mostly coconuts), with a sprinkling of flowering trees in the compounds. Most of the larger buildings have plenty of open work about them (verandahs, balconies, porches, etc.) which attract such species as House Swift, House Sparrow and Common Myna for nesting

## DHUBALIA

The built-up area here consisted principally of Service hutments, camps and aerodrome buildings, all fairly well dispersed so that they merged into the habitat type in which they were situated, and could not be satisfactorily separated from it.



LOCATION OF SURVEY AREA





## JESSORE

purposes. In addition to the permanent buildings, a large number of 'basha' huts had been built to house Service personnel. My living quarters and mess were in this area and for a short time I also worked there both by day and by night.

## DHUBALIA

## II. CULTIVATION GROUP

(2) *Mixed Cultivation*: The 'fields' are open spaces of various shapes and sizes, set in a matrix of fairly dense mixed jungle with a fair amount of undergrowth. The two are so closely interwoven that it is impossible to treat them as separate habitat types, though on an acreage basis the cultivated ground would, I think, predominate. Mostly low-growing root and surface crops, not identified. Visited only occasionally on foot, but each visit usually lasted several hours.

(3) *Paddyfields*: The chief product of the district is rice and the paddyfields may be described as the matrix in which all other types of habitat are set. Wherever there is any flat land comparatively free from trees it is covered with paddyfields, separated by the usual low bunds, which in the rainy season are flooded to a depth of 12-18". In addition to the paddy there was a fair amount of jute and a few small patches of other low-growing root and surface crops. The whole of this paddy land is sprinkled with small groves of palm trees, with little or no undergrowth, and in many cases the paddy grows right under the trees.

(2) *Mixed Cultivation*: This area is more open than at Jessore, the fields being well broken up by rough hedges and small patches of mixed jungle. It includes several fairly large blocks of rough grassland (similar to park land) studded thinly with trees (chiefly mango) which are not satisfactorily separable. Visited very frequently on foot.

(3) *Paddyfields*: Rice is not grown here to quite such an extent as at Jessore. There were only 1-2 small tracts of paddy land, which, during the survey period, was still flooded and very damp, with the paddy about 18" high.

*Note.*—The flooding of such great areas must no doubt have some effect on the bird population and is a subject which would probably repay further study. My records are not sufficiently detailed, however, to warrant dealing separately with the paddy land during the periods when it was dry and in flood. In actual fact I saw comparatively little change in the bird population which could definitely be attributed to the flooding, but I was told on fairly good authority that further out in the country more water birds and waders were in evidence in the fields.

## III. JUNGLE GROUP

## JESSORE

(4) *Mixed Jungle*: Fairly extensive and patchily dense. Dominant trees mango and bamboo, but various palms, red silk cotton, jack-fruit, lichi and many other kinds also present. Undergrowth varied and at edges of forest gave place to large bushes and scattered babool trees. Several fairly large tanks among the trees, but these were not treated as a separate habitat type. I spent much time here, both by day and by night.

In this type I have also included patches of roadside jungle, which were usually observed only in passing and were not explored. These varied in size and composition, the dominant trees usually being banyans, bamboos and various palms (especially coconuts).

(5) *Scattered roadside trees and bushes*: These formed a narrow ribbon of irregular growth on either side of sections of the road embankment, usually where it ran through paddyfields. The dominant trees were peepal, with a smaller proportion of babool, banyan, palmyra palms and mango. Usually observed only when passing in a vehicle.

(7) *Groves of Palms*: Principally Coconut Palms (*Cocos nucifera*), Date Palm (*Phoenix sylvestris*) and Palmyra Palm (*Borassus flabelliformis*) and Betel-nut Palm (*Areca catechu*), but identity of some trees uncertain. Whole district, especially the paddyfields, sprinkled with

## DHUBALIA

(4) *Mixed Jungle*: The whole countryside is broken up by rough untidy 'hedges' and small patches of mixed jungle, consisting of large straggling bushes, usually growing in a dense tangle, with trees of various kinds. Some of the hedges are swollen into considerable belts of dense bushes. Undergrowth varies. Dominant trees difficult to determine, but tamarind, mango and various palms (including some palmyras) probably predominate.

(6) *Mango Grove*: This covered  $1\frac{1}{2}$ -2 acres. Trees all mature and large, spaced 25-40 ft. apart, the canopy being almost continuous. No undergrowth, except at edges; inside the grove the earth was bare even of grass. This grove contained a number of large 'busti' huts, in one of which I lived.

## JESSORE

## DHUBALIA

small groves of palms, sometimes mixed, sometimes almost entirely Coconut or Date or Betel-nut. Usually no undergrowth and paddy often growing under the trees. Much toddy-tapping done, and this no doubt attracted insects, which in turn attracted birds (*see* General Observations).

## IV. WASTE LAND GROUP

(8) *Waste land under grass*: Fairly extensive and included much of a large aerodrome and the land surrounding it. Intersected by several roads and small dykes and ditches. Covered with rough grass which in the rainy season was up to 3' tall over considerable stretches. This area was sprinkled with small groves of palms and an occasional small scrubby bush. A fair number of well-dispersed 'busti' buildings. Herds of several hundred oxen often grazed here. Aircraft constantly taking off and landing. My visits to this type were usually in a jeep or truck and were less frequent than to some of the other habitat types.

(10) *Marshy waste land*. Covered many acres. Full extent not explored and observation confined to several hundred yards of perimeter. It consisted of very damp ground covered with deep, grassy herbage up to 4' in height in rainy season. After monsoon this was largely beaten down to form a platform over the water (at least 2' deep), strong enough to carry most birds. Ample cover for birds in the herbage.

(8) *Waste land under grass*: This covered about  $\frac{1}{4}$  sq. miles and included a large aerodrome. Consisted simply of rough grass, with occasional small isolated bushes. A fair number of well-dispersed 'busti' buildings and at least one small Indian village, but these were not satisfactorily separable from the main type. Some cattle grazing. Large numbers of coolies working on the aerodrome, and aircraft constantly taking off and landing.

(9) *Semi-marshland*: 800-1,000 acres adjoining river and jheels. In the rainy season, (which had ended just before the survey period began) it is obviously very damp and flooded in most places. A good deal of water (up to 2-3") still about at first, but by the end of the survey period this area had taken on more of the character of rough waste land. Whole area covered with a fairly dense growth of marsh grass, in flower during period. Small bushes of briar and bramble type here and there and small babool trees. Clearly only seasonal marshland. Whole area under observation on foot fairly frequently, usually for several hours at a time.

## V. INLAND WATER GROUP

## JESSORE

(11) *Small river*: 25-30 yds. wide. Very sluggish indeed and in most places much overgrown with weeds [predominantly Water Chestnut (*Trapa bispinosa*) or water hyacinth?] During rainy season there is a good deal more water, but this quickly disappears and thereafter much of the vegetation rots down. The weeds provide excellent cover for birds. Under irregular observation along several short stretches of the bank.

(12) *Jheels and tanks*: In this group I have included an open jheel lying among paddy fields, the only cover at its edge being paddy; and a tank some 70 × 70 yds. also lying among paddyfields and much overgrown. The artificial banks of this were high and were studded with a few trees and bushes. Both were large enough to have a recognisable bird population of their own. The jheel also was largely overgrown with weeds. Both were visited only occasionally.

**Animals: Domestic:** Bullocks, cattle, water buffalo and goats predominated and wandered about everywhere. The bullocks and water buffalo were the main draught animals in the district, with a few horses. There were also large numbers of pie-dogs and a few cats.

**Wild:** Jackals (*Canis aureus*): Very numerous.

Indian Fox (*Vulpes bengalensis*): Numerous throughout the district.

Hyaena (*Hyaena striata*): A few believed to be in the district, but this was not proved.

Common Grey Mongoose (*Herpestes mungo pallidus*): numerous. Often mobbed by birds, especially Common Myna and Magpie Robin.

## DHUBALIA

(11) *Small river*: 25-30 yds. wide. Moderately slow current. Margined irregularly with scattered clumps of marsh grass growing on and broken here and there by short stretches of mud bank. At one end of the stretch under observation was a small fishing weir. Observed irregularly over a length of about two miles.

(12) *Jheels*: At one point the river broadens out into a wide jheel adjoining the semi-marsh land. 3-400 yds. away is another jheel connected to the first by a small, swiftly-flowing seasonal stream running through soft marsh. The 2nd jheel was more than 500 yds. long and 30-40 yds. wide bordered by dense marsh grass (some 3-5 ft. high in places) and weeds. Watering places for cattle at intervals. The 1st jheel dried out almost completely before the end of the survey period, but although the water level in the 2nd jheel fell, I believe, judging from air photos, that it does not normally dry out completely. Visited frequently on foot.



Common Striped Squirrel or Tree Rat (*Sciurus palmarum*): Numerous. Often mobbed, especially by Common Mynas and Magpie Robins.

Leopard (*Felis pardus*): One or two occasionally reported. Fishing Cat (*Felis viverrina*) or possibly Common Jungle Cat (*Felis chaus*); seen at night on several occasions.

Flying Foxes (*Pteropus edwardsii medius*): From June to December these were numerous, especially about the large mango trees in Type (1) at Jessore.

Common Langur [*Presbytes (Semnopithecus) entellus*]: A small party was often to be seen at Dhubalia, but did not occur at Jessore.

*Reptiles*: Water Monitor (*Varanus salvator*): One reported twice at Dhubalia on good authority, but not seen by me. Snakes plentiful, of various kinds, including cobra.

*Amphibians*: Frogs very numerous, especially at Jessore. Species not identified.

*Insects*: The insects were so numerous and varied as to be a perfect pest, particularly at night and during the rainy season, and especially at Jessore.

#### General:

(1) *Conditions*: Bird-watching depended on the opportunities afforded by intensive war work, but on the whole these were numerous and covered every part of the day and night. Apart from casual observations at all times, most of my spare time was spent in bird-watching, usually alone. For identification purposes I was confined to the usual books (including the *Fauna of British India*—Birds, 2nd Edition), as there was no museum available for specimens.

(2) *Preponderance of Observation*: I. Jessore: I lived and had my meals in Type (1), and for the first few months of the survey period I also worked there. Later I worked in Type (4) being conveyed there by car or truck through Types (3), (5), (1) and sometimes (8). I often spent the day and the night in Type (4) both in the dry and (though to a lesser extent) in the rainy season.

II. Dhubalia: I lived in Type (6) and worked in Type (8) but had frequent opportunities of exploring on foot all the other habitat types covered.

(3) *Disturbance*: The population of the whole district, both at Jessore and Dhubalia was increased by several thousand Service personnel, and in addition to the native traffic on the roads there was continual Service traffic as well. In addition, aircraft were constantly flying low overhead and landing at and taking off from the aerodromes. I saw little evidence, however, that these caused any real disturbance among the birds, though the soaring species (Vultures, Kites, etc.) were sometimes scared away.

*Migration*: I did not obtain enough positive evidence to be of any real use in determining migratory trends. Wherever necessary I have given dates in the lists given below.

*Birds and Red Silk Cotton Trees (Bombax malabaricum)*: This tree grows fairly abundantly over the whole survey area, especially at Jessore, both on its own and among other kinds of trees. It

flowers during the dry season, before its leaves appear. The large waxy flowers are very popular with many species of birds, which would perch close to one of the flowers and plunge their heads into the trumpet. Whether their object was to drink the dew, which collects in considerable quantities in the bottom of those flowers which happen to be growing vertically, or to find some form of food (? insects or nectar) inside the blossom, I have been unable to ascertain, but I incline to the former in view of the diversity of the species seen there.

The species I have seen at these flowers are as follows :

Jungle Babbler (*Turdoides somervillei*), Red-vented Bulbul (*Pycnonotus cafer*), Red-whiskered Bulbul (*Pycnonotus jocosus*), Magpie Robin (*Copsychus saularis*), Common Myna (*Acridotheres tristis*), Jungle Myna (*Ethiopsar fuscus*), Pied Myna (*Sturnopastor contra*), Green Barbet (*Megalaima zeylonicus*).

**Birds and Toddy Palms:** It is the practice in these districts as in many others, to tap the palm trees for toddy. A horizontal cleft is made in the trunk just below the branches; from this a short, narrow vertical slit is made into which is inserted a small piece of split bamboo, which acts as a gutter to carry off the liquid away from the trunk. An earthenware bowl or chatti is suspended so that the gutter leads into its mouth. It is a frequent, though not invariable, practice to tie or wedge a small bunch of grass over the gutter, no doubt to keep insects away from the liquid. A cloud of flies can usually be seen hovering over the outlet, whether the grass is there or not.

The flies, no doubt, attracted some species of birds, but so did the liquid itself. The bamboo gutter formed a most convenient perch and the birds made full use of it, taking the liquid as it flowed down the chute. I have seen several species do this, and on one occasion I saw a Tickell's Flowerpecker fluttering a few inches below a gutter to which no bowl was attached, and catching the drops of liquid as they fell. In all, I have seen the following species at the liquid :

Jungle Crow	Common Myna
Jungle Babbler	Jungle Myna
Red-vented Bulbul	Pied Myna
Red-whiskered Bulbul	Grey-headed Myna
Black Drongo	Tickell's Flowerpecker
Tailor Bird	* Golden-backed Woodpecker.
	* Mahratta Woodpecker.

**Birds and Cattle:** For this purpose I include in the term 'cattle' water buffalo, oxen, cows and goats, though the majority of the instances I have witnessed concern oxen. Oxen are used extensively in these districts for ploughing, transport, etc., and may be seen anywhere along the roads and in the fields. Herds of several hundred beasts used to be grazed on the grassy waste land at Jessore [Type (8)], and to a lesser extent on the same type at Dhubalia. There were not very many water-buffalo in the district, though herds were often driven through Jessore, hound, I believe, for the Calcutta

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\* These species were not seen to drink the liquid, and were probably after the insects attracted by the exposure of the sweet liquid.

market. Goats were very numerous wherever there were native dwellings. Almost anywhere where there are cattle, some birds may be seen foraging about them, the species varying to a certain extent with the place the cattle happen to be. At one time or another I have seen the following species so engaged.

**Jungle and House Crows:** These are usually to be seen associated with resting cattle in the streets of the villages or town. They cluster round the beasts and not only pick about on the ground among them, but also habitually perch on their backs and pick insects out of their eyes, ears and hide. It was no uncommon sight to see half a dozen House Crows and one or two Jungle Crows foraging about oxen lying down in the road outside my bungalow.

Common and Pied Mynas act in a similar way, but are to be seen about moving cattle as frequently as about resting ones. They often perch on their backs, whether the beasts happen to be working or not, though I do not remember ever having seen them do this when the cattle were pulling carts. But they are more often to be seen exploring the ground round the feet of the moving beasts in the fields, in an exactly similar way to Starlings (*Sturnus vulgaris*) in Europe.

Black Drongos almost invariably perch on the backs of moving or standing cattle, from which they make foraging sorties after flying insects. They also, rather less frequently, I think, catch insects on the beasts themselves.

The Magpie Robin's association, I think, is usually more fortuitous than deliberate, and occurs much less frequently. I have never seen one do more than fly down to the ground at the feet of cattle from a neighbouring perch.

White (and no doubt other) Wagtails may occasionally be seen foraging about moving or resting cattle, but I think the association is less marked than is often the case with the wagtails in Europe. This impression, however, may be partly due to the fact that most wagtails appear to be present in this district only for a comparatively short time each year, and that I have not been specially on the look-out for instances of their association with cattle.

The House Sparrow's association usually seems to be confined to occasional cases of foraging among beasts resting in the streets of the village or town.

Cattle Egrets (or Tick Birds, as they are popularly known) feed about browsing or ploughing, etc., cattle in much the same way as the Mynas, and they frequently pick insects off the beasts' legs and flanks.

I have never seen Red or Yellow-wattled Lapwings or gulls foraging among cattle, in the same way as Lapwings (*Vanellus vanellus*) or Black-headed Gulls (*Larus ridibundus*) do in Europe. Commensalism is a subject which could profitably be given much more attention in India than it has hitherto enjoyed.

**Weather:** In winter (Oct. to mid or end of March) the weather is usually very settled, with pleasantly warm days and quite cold nights, the difference between the day and night temperatures being particularly marked in December, January and February, though there is no frost. By the end of March, or a little earlier, the colder weather is beginning to break and there is more cloud, with storms and sudden



squalls with winds up to about 50 m.p.h., and the humidity increases. These unsettled conditions continue until the South-west Monsoon has really arrived, and from then until the end of September the sky is more often than not filled with towering cumulus and cumulo-nimbus clouds, with some periods of stratus or strato-cumulus forming a cloud blanket over the whole area. There are many electric storms at this period and the humidity is very high. The real rainy season is June-September, when over 30" falls. I give below some temperature and rainfall data.

Jessore :	Temperature (Fahrenheit.)				Rainfall.	
	Average		Absolute			
	Max.	Min.	Max.	Min.		
April 1943	...	91.3	71.4	99.0	64.0	5.18"
May "	...	94.9	76.7	98.0	71.0	2.25"
June "	...	No records available.				
July "	...	84.4	76.7	93.0	73.0	16.16"
Aug. "	...	88.8	77.4	92.0	75.0	13.62"
Sept. "	...	90.2	77.6	98.0	74.0	4.91"
Oct. "	...	91.0	73.5	96.0	66.0	6.39"
Nov. "	...	86.1	60.0	91.0	54.0	...
Dec. "	...	79.7	55.5	82.0	49.0	...
Jan. 1944	...	73.4	53.4	83.7	44.9	5.8"
Feb. "	...	79.2	56.9	88.2	52.5	1.0"
March "	...	84.0	64.0	94.0	56.4	3.47"
April "	...	92.6	73.1	98.0	62.0	4.46"
May "	...	97.9	79.4	107.0	71.0	3.04"
June "	...	90.5	77.9	101.0	71.0	4.55"
July "	...	88.5	78.6	93.0	75.0	13.49"
Aug. "	...	88.3	78.4	93.0	75.0	13.29"
Sept. , 1st-5th	...	88.8	77.6	90.0	74.0	(1.64")
<i>Dhubalia:</i>						
Sept. , 18-30th	...	90.0	77.7	95.0	75.0	2.57"
Oct. "	...	88.0	72.3	92.0	75.0	0.96"
Nov. "	...	84.2	55.8	96.0	53.0	...
Dec. "	...	No records available.				

Method of Recording: Having spent the first few weeks after my arrival in exploring the district, ascertaining what major habitat types were involved and how they could best be grouped, I then made a list, with a separate column for each of the major habitat types covered. Another column contained a list of the species I had seen in the neighbourhood, with a 'X' in the habitat column to indicate in what types of habitat they had been seen. At irregular, though fairly frequent intervals, I went through this list and brought it up to date by the addition of new species seen, fresh habitats where they occurred and the addition of further columns for any new type of habitat not included previously. In doing this I relied on memory, coupled with my general bird records, and I believe the record to be complete. Six times during the period at Jessore and twice at Dhubalia this composite list was fair-copied into my general note-books, with full introductory notes on all appropriate 'background' matters such as agricultural operations, preponderance of observation and so on. A more accurate method would undoubtedly be to have kept detailed day-to-day records

of all birds seen in each of the habitat types under observation, but this was impracticable here, though I have done the same thing over a period of some five years on a farm in England.

### INCIDENCE OF SPECIES

#### I. CIVILISATION GROUP

##### (1) *Country Town* — Jessore

No.

1. Jungle Crow (*Corvus macrorhynchos*)<sup>1</sup>: Numerous, but rather less so than House Crow. Could often be seen foraging about the various Service cook-houses.
2. House Crow (*Corvus splendens*): As last, but rather more numerous. Often to be seen foraging outside the Indian eating houses in the Bazar proper, as well as about Service cook-houses, etc.
3. Indian Tree Pie (*Dendrocitta vagabunda*): Regularly seen and fairly plentiful.
4. Indian Grey Tit (*Parus major*): Fairly plentiful.
5. Jungle Babbler (*Turdoides somervillei*): Fairly plentiful.
6. Abbott's Babbler (*Malacocincla sepiaria*): 1-2 believed seen April 1944, but identity not proved beyond all doubt.
7. Common Iora (*Ægithina tiphia*): Plentiful.
8. Bengal Red-vented Bulbul (*Pycnonotus cafer*): Plentiful. Their numbers seemed to be increased towards end of rainy season.
9. Red-whiskered Bulbul (*Pycnonotus jocosus*): Plentiful, though rather less so than last species.
10. Magpie Robin (*Copsychus saularis*): Abundant.
11. Red-breasted Flycatcher (*Muscicapa parva*): Evidently only a winter visitor, as they were thinly distributed throughout this area from early December to early April.
12. White-browed Fantail Flycatcher (*Rhipidura aureola*): Rather thinly distributed.
13. Ashy Swallow-Shrike (*Artamus fuscus*): A few present in rainy season.
14. Indian Black Drongo (*Dicrurus macrocercus*): Abundant.
15. Indian Tailor Bird (*Orthotomus sutorius*): Fairly plentiful.
16. Indian Oriole (*Oriolus o. kundoo*): A few seen occasionally.
17. Black-headed Oriole (*Oriolus xanthornus*): Fairly plentiful. A nest with young found in July 1943.
18. Grey-headed Myna (*Sturnia malabarica*): Rather thinly distributed.
19. Common Myna (*Acridotheres tristis*): Abundant.
20. Pied Myna (*Sturnopastor contra*): Not quite so plentiful as No. 19.
21. Indian House Sparrow (*Passer domesticus*): Fairly plentiful.

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<sup>1</sup>The scientific names will appear only on the first mention of a species in the following lists.

(1) *Country Town*—Jessore (Contd.)

- No.
22. Purple Sunbird (*Cinnyris asiatica*): Fairly plentiful.
  23. Purple-rumped Sunbird (*C. zeylonica*): Fairly numerous—I think slightly more so than No. 22.
  24. Tickell's Flowerpecker (*Dicaeum erythrorhynchos*): Somewhat thinly distributed, but no doubt often overlooked.
  25. Golden-backed Woodpecker (*Brachypternus benghalensis*): Plentiful.
  26. Tickell's Golden-backed Woodpecker (*Chrysocolaptes guttacrissatus*): Rather less numerous than No. 25.
  27. Little Scaly-bellied Green Woodpecker (*Picus xanthopygaeus*): As many as three seen together, but not plentiful.
  28. Mahratta Woodpecker (*Dryobates mahrattensis*): A few seen.
  29. Green Barbet (*Megalaima zeylonicus*): Plentiful.
  30. Blue-throated Barbet (*Megalaima asiatica*): Plentiful.
  31. Coppersmith (*Megalaima haemacephala*): Fairly plentiful, but less so than Nos. 31 and 32. On 12-8-1944 at least 50 were together in a row of large banyan trees; later a dozen or so flew to the concrete parapet of a small house, where they appeared to be taking something from the surface. Whether this was food in the form of insects or seeds, or small grains of sand or concrete for roughage, I could not tell.
  32. Indian Cuckoo (*Cuculus micropterus*): Appeared to be abundant, though I could not judge to what extent it is locally migratory. From March to August its call was wearisome, but it was completely silent during the rest of the year.
  33. Common Hawk Cuckoo (*Hierococcyx varius*): Abundant.
  34. Pied Crested Cuckoo: (*Clamator jacobinus*): A few present in July and August, but not seen or heard at other times.
  35. Koel (*Eudynamis scolopaccus*): Abundant.
  36. Crow-Pheasant (*Centropus sinensis*): Plentiful. On one occasion I found one bird moving easily among the upper branches of a tree some 40' above the ground.
  37. Large Parrakeet (*Psittacula eupatria*): Not very plentiful.
  38. Roller (*Coracias benghalensis*): A few, but not very numerous.
  39. Green Bee-eater (*Merops orientalis*): Numerous.
  40. Pied Kingfisher (*Ceryle rudis*): A few seen about the tanks.
  41. Common Indian Kingfisher (*Alcedo atthis*): Plentiful about the numerous tanks.
  42. Stork-billed Kingfisher (*Ramphalcyon capensis*): Fairly plentiful.
  43. White-breasted Kingfisher (*Halcyon smyrnensis*): Plentiful about the tanks.
  44. House Swift (*Micropus affinis*): Fairly plentiful.
  45. Palm Swift (*Cypsiurus batassiensis*): Fairly plentiful, though less so than outside the town.
  46. Horsfield's Nightjar (*Caprimulgus macrourus*): Always 1-2 to be heard at night.
  47. Collared Scops Owllet (*Otus bakkamoena*): 1-2 believed always to be heard at night, but not seen and voice was the only means of identification.

(1) *Country Town—Jessore—(Contd.)*

No.

48. Spotted Owlet (*Athene brama*): 1 identified in Aug. 1944.
49. Jungle Owlet (*Glaucidium radialum*): 1-2 believed heard now and again, but identity not proved.
50. King Vulture (*Torgos calvus*): plentiful.
51. Long-billed Vulture (*Gyps indicus*): less plentiful than the other vultures.
52. White-backed Vulture (*Pseudogyps bengalensis*): Abundant.
53. Crested Serpent Eagle (*Spilornis cheela*): usually 1-2 about.
54. Pariah Kite (*Milvus migrans*): Ubiquitous.
55. Brahminy Kite (*Haliastur indus*): Plentiful.
56. Shikra (*Astur badius*): one seen once over the town.
57. Rufous Turtle Dove (*Streptopelia orientalis*): a few about.
58. Spotted Dove (*Streptopelia chinensis*): fairly plentiful.
59. Red Turtle Dove (*Oenopopelia tranquebarica*): a few about.
60. Blue Rock Pigeon (*Columba livia*): Fairly plentiful.
61. Cattle Egret (*Bubulcus ibis*): Fairly plentiful.
62. Indian Pond Heron (*Ardeola grayi*): fairly plentiful.

## II. CULTIVATION GROUP

No.	SPECIES	MIXED CULTIVATION		PADDYFIELDS	
		JESSORE	DHUBALIA	JESSORE	DHUBALIA
1	Jungle Crow	...	...	plentiful foraging, do., but fewer than No. 1.	fairly numerous.
2	House Crow	...	...	plentiful, but less so than No. 1.	...
3	Indian Tree Pie	...	...	fairly plentiful in and near jungle patches.	...
4	Indian Grey Tit	...	...	do.	...
5	Jungle Babbler	...	...	do.	...
6	Common Babbler ( <i>Argya caudata</i> ).	...	...	1 party believed seen on 26-12-43 but not positively identified.	occasionally foraging.
7	Abbott's Babbler	...	...	1-2 believed seen April-May 1914.	...
8	Common Iora	...	...	plentiful.	...
9	Red-vented Bulbul	...	...	plentiful, foraging.	plentiful foraging.
10	Red-whiskered Bulbul	...	...	do., but rather less so than No. 9.	do., but rather less so than No. 9.
11	Magpie Robin	...	...	abundant.	abundant foraging.
12	Red-breasted Flycatcher	...	...	thinly distributed in winter months	...
13	Black-naped Flycatcher ( <i>Hypothymis azurea</i> ).	...	...	usually a few in jungle patches.	...
14	White-browed Fantail Flycatcher	...	...	rather thinly distributed.	...
15	Bay-backed Shrike ( <i>Lanius vittatus</i> )	...	...	.....	not uncommon.
16	Black-headed Shrike ( <i>L. nasutus</i> )	...	...	.....	a few.
17	Rufous-backed Shrike ( <i>L. erythronotus</i> ).	...	...	not uncommon.	not uncommon
18	Brown Shrike ( <i>L. cristatus</i> )	...	...	a single one seen on 26-12-43.	plentiful tho' less so towards end of survey period.



19	Common Wood-Shrike ( <i>Tephrodornis pondiceriana</i> ).	a few.	.....	.....	.....
20	Little Minivet ( <i>Pericrocotus peregrius</i> ).	not uncommon.	.....	.....	.....
21	Ashy Swallow-Shrike ...	abundant.	.....	.....	.....
22	Indian Black Drongo ...	abundant.	one party seen.	abundant.	abundant.
23	Indian White-bellied Drongo ( <i>Dicrurus caerulescens</i> ).	.....	abundant.	.....	.....
24	Blyth's Reed Warbler ( <i>Acrocephalus dumetorum</i> ).	1-2 believed seen, but identity not proved.	18-11-44.	.....	.....
25	Indian Tailor Bird ...	fairly plentiful about jungle.	.....	.....	.....
26	Burmese Tailor Bird (?)	on several occasions birds seen were a good deal darker and brighter than other birds. ? this sub-species.	.....	.....	.....
27	Black-headed Oriole ...	fairly plentiful, chiefly in and near jungle patches	.....	.....	.....
28	Grey-headed Myna ...	rather thinly distributed, chiefly about jungle patches.	a few foraging.	.....	.....
29	Common Myna ...	abundant.	abundant foraging.	abundant foraging.	a few foraging.
30	Bank Myna ( <i>Acridotheres ginnianus</i> ).	a few.	.....	.....	.....
31	Jungle Myna ( <i>Ethiopsar fuscus</i> ) ...	rather thinly distributed.	.....	.....	.....
32	Pied Myna ...	abundant; usually rather more than No. 28 in this type.	abundant foraging, usually rather more than No. 28 in this type.	abundant foraging, usually rather more than No. 28 in this type.	abundant foraging, usually rather more than No. 28 in this type.
33	Baya Weaver Bird ( <i>Ploceus philippinus</i> ).	.....	numerous; always at least one flock in evidence, foraging.	one colony found nesting in a large tree among paddy fields.	.....
34	White-throated Munia ( <i>Uroloncha malabarica</i> ).	.....	.....	usually a few to be seen.	.....





II. CULTIVATION GROUP

No.	SPECIES	MIXED CULTIVATION		PADDYFIELDS	
		JESSORE	DHUBALIA	JESSORE	DHUBALIA
1	Jungle Crow ... ..	plentiful.	fairly numerous.	plentiful foraging.	fairly numerous.
2	House Crow ... ..	plentiful, but less so than No. 1.	do., but less so than No. 1.	do., but fewer than No. 1.	.....
3	Indian Tree Pie ... ..	fairly plentiful in and near jungle patches.	.....	.....	.....
4	Indian Grey Tit ... ..	do.	.....	.....	.....
5	Jungle Babbler ... ..	do.	numerous.	occasionally foraging.	.....
6	Common Babbler ( <i>Argya caudata</i> ).	1 party believed seen on 26-12-43 but not positively identified.	fairly numerous.	.....	.....
7	Abbott's Babbler ... ..	1-2 believed seen April-May 1944.	.....	.....	.....
8	Common Iora ... ..	plentiful.	.....	.....	.....
9	Red-vented Bulbul ... ..	plentiful, foraging.	plentiful foraging.	plentiful foraging.	plentiful foraging.
10	Red-whiskered Bulbul ... ..	do., but rather less so than No. 9.	.....	do., but rather less so than No. 9.	.....
11	Magpie Robin ... ..	abundant.	plentiful foraging.	abundant foraging.	plentiful foraging.
12	Red-breasted Flycatcher	thinly distributed in winter months	.....	.....	.....
13	Black-naped Flycatcher ( <i>Hypothymis azurea</i> ).	usually a few in jungle patches.	.....	.....	.....
14	White-browed Fantail Flycatcher ... ..	rather thinly distributed.	.....	.....	.....
15	Bay-backed Shrike ( <i>Lanius vittatus</i> )	.....	.....	not uncommon.	.....
16	Black-headed Shrike ( <i>L. nasutus</i> )...	.....	.....	a few.	.....
17	Rufous-backed Shrike ( <i>L. erythro-notus</i> ).	not uncommon.	.....	not uncommon	.....
18	Brown Shrike ( <i>L. cristatus</i> ) ... ..	a single one seen on 26-12-43.	fairly plentiful tho' less so towards end of survey period.	.....	.....
19	Common Wood-Shrike ( <i>Tephrodornis pondiceriana</i> ).	a few.	.....	.....	.....
20	Little Minivet ( <i>Pericrocotus peregrinatus</i> ).	not uncommon.	.....	.....	.....
21	Ashy Swallow-Shrike ... ..	.....	one party seen.	.....	.....
22	Indian Black Drongo ... ..	abundant.	abundant.	abundant.	abundant.
23	Indian White-bellied Drongo ( <i>Dicurus caerulescens</i> ).	.....	a single bird seen on 18-11-44.	.....	.....
24	Blyth's Reed Warbler ( <i>Acrocephalus dumetorum</i> ).	1-2 believed seen, but identity not proved.	.....	.....	.....
25	Indian Tailor Bird ... ..	fairly plentiful about jungle.	.....	.....	.....
26	Burmese Tailor Bird (?)	on several occasions birds seen were a good deal darker and brighter than other birds. ? this sub-species.	.....	.....	.....
27	Black-headed Oriole ... ..	fairly plentiful, chiefly in and near jungle patches	.....	.....	.....
28	Grey-headed Myna ... ..	rather thinly distributed, chiefly about jungle patches.	a few foraging.	.....	.....
29	Common Myna ... ..	abundant.	abundant foraging.	abundant foraging.	a few foraging.
30	Bank Myna ( <i>Acridotheres gin-ginianus</i> ).	a few.	.....	.....	.....
31	Jungle Myna ( <i>Ethiopsar fuscus</i> ) ... ..	rather thinly distributed.	.....	.....	.....
32	Pied Myna ... ..	abundant; usually rather more than No. 28 in this type.	abundant foraging, usually rather more than No. 28 in this type.	abundant foraging, usually rather more than No. 28 in this type.	abundant foraging, usually rather more than No. 28 in this type.
33	Baya Weaver Bird ( <i>Ploceus philippinus</i> ).	.....	numerous; always at least one flock in evidence, foraging.	one colony found nesting in a large tree among paddy fields.	.....
34	White-throated Munia ( <i>Uroloncha malabarica</i> ).	.....	.....	usually a few to be seen.	.....

## II. CULTIVATION GROUP (Contd.)

No.	SPECIES	MIXED CULTIVATION		PADDYFIELDS	
		JESSORE	DHUBALIA	JESSORE	DEUBALIA
35	Spotted Munia ( <i>Uroloncha punctulata</i> ).	a pair found nesting in a Tad palm in Aug. 1944.	.....	.....	.....
36	Indian House Sparrow ( <i>Passer domesticus</i> ).	fairly plentiful about the threshing floors in the fields.	.....	fairly plentiful about the threshing floors in the fields.	.....
37	Indian Cliff Swallow ( <i>Hirundo fuscicollis</i> ).	.....	usually a few foraging	.....	.....
38	White-faced Wagtail ( <i>Motacilla leucopsis</i> ).	.....	a few seen.	.....	.....
39	Yellow-headed Wagtail ( <i>M. citreola</i> )	several seen about small wheels and tanks in winter.	.....	.....	.....
40	Indian Pipit ( <i>Anthus rufulus</i> ) ...	.....	abundant at first, but less numerous towards end of survey period.	Not uncommon about the drier parts.	.....
41	Bengal Bush Lark ( <i>Minatura assamica</i> ).	.....	always a few about.	.....	.....
	Purple Sunbird ( <i>Cinnyris asiatica</i> )...	fairly numerous about jungle patches.	.....	.....	.....
43	Purple-rumped Sunbird ( <i>C. zeylonica</i> ).	do.; slightly more numerous than 42.	.....	.....	.....
44	Tickell's Flowerpecker ...	usually a few about more wooded parts.	.....	.....	.....
45	Golden-backed Woodpecker ...	plentiful wherever there were trees.	.....	.....	.....

46	Mahratta Woodpecker	...	not uncommon.	.....	.....	.....
47	Black-naped (green) Woodpecker ( <i>Picus canus</i> ).	...	a black-naped woodpecker (I believe of this species) seen on 23-12-1943.	.....	.....	.....
48	Fulvous-breasted Pied Green Barbet ( <i>Dryobates macer</i> ).	Woodpecker	I believed seen on 26-12-1943.	.....	.....	.....
49	Green Barbet	...	plentiful wherever there were trees.	.....	.....	.....
50	Blue-throated Barbet	...	do.; perhaps slightly less numerous than No. 49.	.....	.....	.....
51	Coppersmith	...	fairly plentiful wherever there were trees.	.....	.....	.....
52	Little Cuckoo ( <i>Ciculus cephalus</i> ).	( <i>Ciculus polio-</i>	twice believed seen in Dec. '43 and Feb. '44, but not identified beyond all doubt.	.....	.....	.....
53	Indian Cuckoo	...	appeared to be abundant; called continuously March-August.	.....	.....	.....
54	Common Hawk Cuckoo	...	abundant wherever there were trees.	.....	.....	.....
55	Indian Plaintive Cuckoo ( <i>Cacomanis merulinus</i> ).	...	.....	1 seen 2-3 times about hedges.	.....	.....
56	Koel	...	abundant in more wooded parts.	.....	.....	.....
57	Crow Pheasant	...	plentiful in more wooded parts.	a few foraging.	.....	.....
58	Large Burmese Parrakeet	...	not very plentiful; and ? subspecies.	.....	.....	.....
59	Roller	...	fairly plentiful.	not very plentiful.	fairly plentiful.	not very plentiful.
60	Green Bee-eater	...	abundant.	abundant - often perched on weeds or even a clod of earth.	abundant.	abundant.
61	Blue-tailed Bee-eater ( <i>Merops superciliosus</i> ).	...	.....	.....	reported, but not seen by me.	a few, usually in small parties.



## II. CULTIVATION GROUP (Contd.)

No.	SPECIES	MIXED CULTIVATION		PADDYFIELDS	
		JESSORE	DEUBALIA	JESSORE	DEUBALIA
35	Spotted Munia ( <i>Uroloncha punctulata</i> ).	a pair found nesting in a Tad palm in Aug. 1944.	.....	.....	.....
36	Indian House Sparrow ( <i>Passer domesticus</i> ).	fairly plentiful about the threshing floors in the fields.	.....	fairly plentiful about the threshing floors in the fields.	.....
37	Indian Cliff Swallow ( <i>Hirundo fluviicola</i> ).	.....	usually a few foraging	.....	.....
38	White-faced Wagtail ( <i>Motacilla leucopsis</i> ).	.....	a few seen.	.....	.....
39	Yellow-headed Wagtail ( <i>M. citreola</i> )	several seen about small wheels and tanks in winter.	.....	.....	.....
40	Indian Pipit ( <i>Anthus rufulus</i> ) ...	.....	abundant at first, but less numerous towards end of survey period.	Not uncommon about the drier parts.	.....
41	Bengal Bush Lark ( <i>Miyagra asiatica</i> ).	.....	always a few about.	.....	.....
	Purple Sunbird ( <i>Cinnyris asiatica</i> )...	fairly numerous about jungle patches.	.....	.....	.....
43	Purple-rumped Sunbird ( <i>C. zeylonica</i> ).	do.; slightly more numerous than 42.	.....	.....	.....
44	Tickell's Flowerpecker ...	usually a few about more wooded parts.	.....	.....	.....
45	Golden-backed Woodpecker ...	plentiful wherever there were trees.	.....	.....	.....
46	Mahratta Woodpecker ...	not uncommon.	.....	.....	.....
47	Black-naped Green Woodpecker ( <i>Picus canus</i> ).	a black-naped woodpecker (I believe of this species) seen on 23-12-1943.	.....	.....	.....
48	Fulvous-breasted Pied Woodpecker ( <i>Dryobates naces</i> ).	I believed seen on 26-12-1943.	.....	.....	.....
49	Green Barbet ...	plentiful wherever there were trees.	.....	.....	.....
50	Blue-throated Barbet ...	do.; perhaps slightly less numerous than No. 49.	.....	.....	.....
51	Coppersmith ...	fairly plentiful wherever there were trees.	.....	.....	.....
52	Little Cuckoo ( <i>Cuculus poliocephalus</i> ).	twice believed seen in Dec. '43 and Feb. '44, but not identified beyond all doubt.	.....	.....	.....
53	Indian Cuckoo ...	appeared to be abundant; called continuously March-August.	.....	.....	.....
54	Common Hawk Cuckoo ...	abundant wherever there were trees.	.....	.....	.....
55	Indian Plaintive Cuckoo ( <i>Cacomantis merulinus</i> ).	.....	1 seen 2-3 times about hedges.	.....	.....
56	Koel ...	abundant in more wooded parts.	.....	.....	.....
57	Crow Pheasant ...	plentiful in more wooded parts.	a few foraging.	.....	.....
58	Large Burmese Parrakeet ...	not very plentiful; and? subspecies.	.....	.....	.....
59	Roller ...	fairly plentiful.	not very plentiful.	fairly plentiful.	not very plentiful.
60	Green Bee-eater ...	abundant.	abundant; often perched on weeds or even a clod of earth.	abundant.	abundant.
61	Blue-tailed Bee-eater ( <i>Merops superciliosus</i> ).	.....	.....	reported, but not seen by me.	a few, usually in small parties.

## II. CULTIVATION GROUP—(Contd.)

No.	SPECIES	MIXED CULTIVATION		PADDYFIELDS	
		JESSORE	DHUBALIA	JESSORE	DHUBALIA
		62	Pied Kingfisher	.....	.....
63	Common Indian Kingfisher	a few seen.	.....	.....	.....
64	Stork-billed Kingfisher	fairly plentiful.	.....	.....	.....
65	White-breasted Kingfisher	plentiful about jheels and tanks.	usually a few about, often perched in trees in the fields.	.....	usually a few.
66	Hoopoe ( <i>Upupa epops</i> )	1 seen on 2-2-1944.	.....	.....	.....
67	House Swift	fairly plentiful, foraging	.....	fairly plentiful, foraging.	.....
68	Palm Swift	do.	usually a few to be seen.	do.	usually a few to be seen.
69	King Vulture	abundant	abundant.	abundant.	abundant.
70	White-backed Vulture	abundant	abundant.	abundant.	abundant.
71	Small White Scavenger Vulture ( <i>Neophron percnopterus</i> ).	.....	one seen once.	.....	.....
72	Crested Serpent Eagle	usually a few to be seen.	.....	.....	.....
73	White-eyed Buzzard Eagle ( <i>Buteo teesa</i> ).	.....	.....	1 seen 16-3-1944 perched on a telegraph wire.	.....
74	Brahminy Kite	plentiful.	often a few about.	fairly plentiful.	.....
75	Pariah Kite	ubiquitous.	ubiquitous.	ubiquitous.	ubiquitous.
76	Pale Harrier ( <i>Circus macrorurus</i> )	.....	one believed seen soaring on 7-12-'44.	.....	.....
77	Shikra	.....	a few.	.....	.....
78	Blue Rock Pigeon	fairly plentiful.	a few.	fairly plentiful.	.....
79	Rufous Turtle Dove	do. wherever there was cover.	fairly numerous.	do. foraging.	.....

80	Spotted Dove	...	do.	abundant.	do.	...
81	Red Turtle Dove	...	do.	fairly plentiful.	do.	.....
82	Indian Ring Dove <i>(Streptopelia</i> <i>decaocto)</i> .	...	not uncommon.	fairly plentiful.	do.	.....
83	Grey Partridge <i>(Francolinus pondi-</i> <i>cerianus)</i> .	...	not plentiful.	a few always about, but not very plenti- ful.	.....	.....
84	Common Bustard Quail <i>(Turnix</i> <i>suscitator)</i> .	.....	.....	a few seen at close quarters.	.....	.....
85	Indian Button Quail <i>(Turnix macu-</i> <i>latus)</i> .	.....	.....	3 seen together on 22-9-44. One shot.	.....	.....
86	White-breasted Waterhen <i>(Amau-</i> <i>rornis phoenicura)</i> .	.....	.....	1-2 could always be found foraging in the evenings and at night.	.....	1-2 could always be found foraging in the evenings and at night.
87	Bronze-winged Jacana <i>(Motopidius</i> <i>indicus)</i> .	.....	fairly plentiful about the jheels.	.....	1-2 found in flooded paddyfields.	.....
88	Pheasant-tailed Jacana <i>(Hydrophas-</i> <i>ianus chirurgus)</i> .	.....	.....	.....	do.	.....
89	Painted Snipe <i>(Rostratula benghal-</i> <i>ensis)</i> .	.....	.....	.....	not uncommon in flooded p a d y- fields during the rains.	.....
90	Indian Stone Curlew <i>(Burhinus</i> <i>oedincemus)</i> .	.....	.....	1-2 could be heard calling any moonlit night—identity be- lieved correct, but not proved beyond all possible doubt.	.....	.....
91	Green Sandpiper <i>(Tringa ochro-</i> <i>pus)</i> .	.....	.....	.....	a few found in flood- ed paddyfields.	.....
92	Common Snipe <i>(Capella gallinago)</i> .	.....	.....	.....	1 shot in flooded paddyfields.	.....
93	Red-wattled Lapwing <i>(Lobivanellus</i> <i>indicus)</i> .	.....	fairly plentiful.	fairly plentiful. Usu- ally noisy at night, especially about full moon.	fairly plentiful.	.....





II. CULTIVATION GROUP—(Contd.)

No.	SPECIES	MIXED CULTIVATION		PADDYFIELDS	
		JESSORE	DHUBALIA	JESSORE	DHUBALIA
62	Pied Kingfisher ... ..	.....	.....	a few seen foraging over flooded paddy fields.	.....
63	Common Indian Kingfisher ...	a few seen.	.....	.....	.....
64	Stork-billed Kingfisher ...	fairly plentiful.	.....	.....	.....
65	White-breasted Kingfisher ...	plentiful about jheels and tanks.	usually a few about, often perched in trees in the fields.	.....	usually a few.
66	Hoopoe ( <i>Upupa epops</i> ) ...	1 seen on 2-2-1944.	.....	.....	.....
67	House Swift ... ..	fairly plentiful, foraging	.....	fairly plentiful, foraging.	.....
68	Palm Swift ... ..	do.	usually a few to be seen.	do.	usually a few to be seen.
69	King Vulture ... ..	abundant	abundant.	abundant.	abundant.
70	White-backed Vulture ... ..	abundant	abundant.	abundant.	abundant.
71	Small White Scavenger Vulture ( <i>Neophron percnopterus</i> ) ...	.....	one seen once.	.....	abundant.
72	Crested Serpent Eagle ... ..	usually a few to be seen.	.....	.....	.....
73	White-eyed Buzzard Eagle ( <i>Buteo teesa</i> ). ...	.....	.....	1 seen 16-3-1944 perched on a telegraph wire.	.....
74	Brahmiv Kite ... ..	plentiful.	often a few about.	fairly plentiful.	.....
75	Pariah Kite ... ..	ubiquitous.	ubiquitous.	ubiquitous.	ubiquitous.
76	Pale Harrier ( <i>Circus macrourus</i> ) ...	.....	one believed seen soaring on 7-12-'44.	.....	.....
77	Shikra ... ..	.....	a few.	.....	.....
78	Blue Rock Pigeon ... ..	fairly plentiful.	a few.	fairly plentiful.	.....
79	Rufous Turtle Dove ... ..	do. wherever there was cover.	fairly numerous.	do. foraging.	.....
80	Spotted Dove ... ..	do.	abundant.	do.	.....
81	Red Turtle Dove ... ..	do.	fairly plentiful.	do.	.....
82	Indian Ring Dove ( <i>Streptopelia decacto</i> ). ...	not uncommon.	fairly plentiful.	do.	.....
83	Grey Partridge ( <i>Francoelinus pondicerianus</i> ). ...	not plentiful.	a few always about, but not very plentiful.	.....	.....
84	Common Bustard Quail ( <i>Turnix suscitator</i> ). ...	.....	a few seen at close quarters.	.....	.....
85	Indian Button Quail ( <i>Turnix maculatus</i> ). ...	.....	3 seen together on 22-9-44. One shot.	.....	.....
86	White-breasted Waterhen ( <i>Amaurornis phoeniceura</i> ). ...	.....	1-2 could always be found foraging in the evenings and at night.	.....	1-2 could always be found foraging in the evenings and at night.
87	Bronze-winged Jacana ( <i>Metopidius indicus</i> ). ...	fairly plentiful about the jheels.	.....	1-2 found in flooded paddyfields.	.....
88	Pheasant-tailed Jacana ( <i>Hydrophasianus chirurgus</i> ). ...	.....	.....	do.	.....
89	Painted Snipe ( <i>Rostratula benghalensis</i> ). ...	.....	.....	not uncommon in flooded paddyfields during the rains.	.....
90	Indian Stone Curlew ( <i>Eurhinus oedinenus</i> ). ...	.....	1-2 could be heard calling any moonlit night—identity believed correct, but not proved beyond all possible doubt.	.....	.....
91	Green Sandpiper ( <i>Tringa ochropus</i> ). ...	.....	.....	a few found in flooded paddyfields.	.....
92	Common Snipe ( <i>Capella gallinago</i> ). ...	.....	.....	1 shot in flooded paddyfields.	.....
93	Red-wattled Lapwing ( <i>Lobivanellus indicus</i> ). ...	fairly plentiful.	fairly plentiful. Usually noisy at night, especially about full moon.	fairly plentiful.	.....

## II. CULTIVATION GROUP—(Contd.)

No.	SPECIES	MIXED CULTIVATION		PADDYFIELDS	
		JESSORE	DHUBALIA	JESSORE	DHUBALIA
94	Little Cormorant ( <i>Phalacrocorax niger</i> ).	2 seen once on small pond.	.....	.....	seen several times on trees among paddy-fields. ....
95	White-necked Stork ( <i>Dissoura episcopa</i> ).	.....	.....	Reported from flooded paddyfields but not seen by me.	.....
96	Little Egret ( <i>Egretta garzetta</i> ) ...	.....	.....	fairly plentiful.	.....
97	Cattle Egret	do.	always a few about.	do.	usually a few about.
98	Indian Pond Heron	.....	do.	do.	do.
99	Cotton Teal ( <i>Nettion coromandelianus</i> ).	.....	.....	not uncommon among flooded paddyfields during the rains.	.....
100	Lesser Whistling Teal ( <i>Dendrocygna javanica</i> ).	.....	.....	do.	.....
101	Indian Little Grebe ( <i>Podiceps ruficollis</i> ).	.....	.....	1-2 seen among flooded paddyfields.	.....

Note.—It must be borne in mind that there was much more jungle among the mixed cultivation at Jessore than at Dhubalia, and than among the paddyfields.

III. JUNGLE GROUP

No.	SPECIES	MIXED JUNGLE		ROADSIDE TREES	GROVES OF PALMS	MANGO GROVE
		JESSORE	DHUBALIA	JESSORE	JESSORE	DHUBALIA
1	Jungle Crow	...	numerous.	always a few.	always a few.	plentiful.
2	House Crow	...	plentiful, though Jess so than No. 1.	usually a few.	usually a few.	always a few.
3	Indian Tree Pie	...	fairly plentiful.	occasionally present.	.....	usually 1-2 about.
4	Indian Grey Tit	...	do.	not uncommon.	.....	.....
5	Jungle Babbler	...	do.	.....	.....	one party always about.
6	Common Babbler	...	.....	.....	.....	.....
7	Red-capped Babbler ( <i>Timalia pileata</i> ).	...	do.	.....	.....	.....
8	Abbott's Babbler	...	usually a few about in thick bushes.	.....	.....	.....
9	Common Iora	...	1-2 believed seen in April/May 1944.	not uncommon.	.....	not uncommon.
10	Jerdon's Chloropsis ( <i>Chloropsis jerdoni</i> ).	...	plentiful.	.....	.....	at least 2 appeared on 30-11-44 & were seen on several days.
11	Red-vented Bulbul	...	plentiful.	plentiful.	plentiful.	always a few.
12	Red-whiskered Bulbul	...	ditto, but less so than No. 11.	fairly plentiful.	fairly plentiful.	sometimes 1-2.
13	Magpie Robin	...	abundant.	numerous.	numerous.	always several.
14	Orange-headed Thrush ( <i>Geothlypis trichas</i> ).	Ground	a single bird seen in spring 1944.	.....	.....	.....



28	White-bellied Drongo	... a small party believed seen 17-2-44.	.....	.....	.....	.....
29	Blyth's Reed Warbler	... 1-2 believed seen March/April 44, but identity not proved.	1-2 suspected, but identity not proved.	.....	.....	.....
30	Indian Tailor Bird	... fairly plentiful.	fairly plentiful.	often a few.	.....	usually 1-2.
31	Burmese Tailor Bird	... 1-2 believed seen.	.....	.....	.....	.....
32	Booted Warbler or Syke's Tree Warbler ( <i>Hippolais caligata</i> ).	... 1-2 believed seen in December 1943 but identity not proved.	.....	.....	.....	.....
33	Yellow-browed (Crowned) Willow Warbler ( <i>Phylloscopus inornatus</i> ).	... .....	.....	.....	.....	believed always 1-2 about, but identity not proved.
34	Ashy Wren-warbler ( <i>Prinia socialis</i> ).	... .....	2-3 believed seen, but identity not proved.	.....	.....	.....
35	Indian Oriole	... less plentiful than No. 36.	.....	.....	.....	.....
36	Black-headed Oriole	... fairly plentiful.	plentiful.	not uncommon.	.....	usually 1-2.
37	Grey-headed Myna	... rather thinly distributed.	not very numerous.	sometimes a few.	.....	usually 3-4.
38	Common Myna	... numerous.	numerous.	fairly numerous.	fairly numerous.	always a few.
39	Bank Myna	... less numerous than the other Mynas.	.....	not uncommon.	not uncommon.	.....
40	Jungle Myna	... rather thinly distributed.	.....	.....	.....	.....
41	Pied Myna	... numerous.	slightly more plentiful than No. 38.	fairly numerous; many nesting in the peepal trees.	fairly numerous.	usually a few.
42	Baya Weaver Bird	... .....	numerous in flocks.	.....	.....	.....
43	White-throated Munia	... .....	not uncommon.	.....	.....	occasionally a few.
44	Indian House Sparrow	... always a few about buildings.	.....	occasionally foraging.	.....	.....





III. JUNGLE GROUP—(Contd.)

No.	SPECIES	MIXED	JUNGLE	ROADSIDE TREES	GROVES OF PALMS	MANGO GROVE
		JESSORE	DHUBALIA	JESSORE	JESSORE	DHUBALIA
15	Red-breasted Flycatcher ...	evidently a winter visitor, thinly distributed.	numerous.	.....	1-2 seen Oct. 43—Jan. 44.	after 1-10-44, always 1-2 about.
16	Verditer Flycatcher ( <i>Emyias thalassina</i> ).	a single bird seen on 24-2-1944.	.....	.....	.....	.....
17	Paradise Flycatcher ( <i>Tchitrea paradisi</i> ).	rather thinly distributed during cold season; not seen at other times.	.....	.....	.....	1, possibly 2 seen mid-Oct.
18	Black-naped Flycatcher ...	usually a few to be seen.	.....	.....	.....	1 seen definitely once; presence often suspected. usually 1 about.
19	White-browed Fantail Flycatcher.	rather thinly distributed.	a few about.	.....	.....	.....
20	Bay-backed Shrike	.....	.....	a few.	a few.	.....
21	Black-headed Shrike	.....	.....	.....	a few in winter.	.....
22	Rufous-backed Shrike	.....	.....	a few.	a few.	.....
23	Brown Shrike	.....	very numerous at first, less so towards end of survey period.	.....	.....	.....
24	Common Wood-Shrike	not uncommon	not uncommon.	a few.	.....	not uncommon.
25	Little Minivet	not uncommon	.....	.....	.....	not uncommon.
26	Ashy Swallow-Shrike	usually a few about.	a few seen.	.....	.....	.....
27	Black Drongo	abundant.	plentiful.	fairly numerous.	fairly numerous.	always a few
28	White-bellied Drongo	a small party believed seen 17-2-44.	.....	.....	.....	.....
29	Blyth's Reed Warbler	1-2 believed seen March/April 44, but identity not proved.	1-2 suspected, but identity not proved.	.....	.....	.....
30	Indian Tailor Bird	fairly plentiful.	fairly plentiful.	often a few.	.....	usually 1-2.
31	Burmese Tailor Bird	1-2 believed seen.	.....	.....	.....	.....
32	Booted Warbler or Syke's Tree Warbler ( <i>Hippolais caligata</i> ).	1-2 believed seen in December 1943 but identity not proved.	.....	.....	.....	.....
33	Yellow-browed (Crowned) Willow Warbler ( <i>Phylloscopus inornatus</i> ).	.....	.....	.....	.....	believed always 1-2 about, but identity not proved.
34	Ashy Wren-Warbler ( <i>Prinia socialis</i> ).	.....	2-3 believed seen, but identity not proved.	.....	.....	.....
35	Indian Oriole	less plentiful than No. 36.	.....	.....	.....	.....
36	Black-headed Oriole	fairly plentiful.	plentiful.	not uncommon.	.....	usually 1-2.
37	Grey-headed Myna	rather thinly distributed.	not very numerous.	sometimes a few.	.....	usually 3-4.
38	Common Myna	.....	numerous.	fairly numerous.	fairly numerous.	always a few.
39	Bank Myna	less numerous than the other Mynas.	.....	not uncommon.	not uncommon.	.....
40	Jungle Myna	rather thinly distributed.	.....	.....	.....	.....
41	Pied Myna	numerous.	slightly more plentiful than No. 38.	fairly numerous; many nesting in the peepal trees.	fairly numerous.	usually a few.
42	Baya Weaver Bird	.....	numerous in flocks.	.....	.....	.....
43	White-throated Munia	.....	not uncommon.	.....	.....	occasionally a few.
44	Indian House Sparrow	always a few about buildings.	.....	occasionally foraging.	1-2	.....

